

30 015 35150

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO
---------	----------	----------	-----------	------	--------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



JAN - 8 2008  
 OCD-ARTESIA

## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]  
 [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD
- Check One Only for [B] or [C]  
 [B] Commingling - Storage - Measurement  
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR
- [D] Other: Specify \_\_\_\_\_
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply  
 [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☐ Offset Operators, Leaseholders or Surface Owner  
 [C] ☐ Application is One Which Requires Published Legal Notice  
 [D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U S Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached
- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

BRIAN COLLINS

Print or Type Name

Signature

ENGINEER

Title

01/04/08

Date

engineering@marbob.com  
 e-mail Address

JAN - 8 2008  
OCD-ARTESIA

**Engineering Summary**  
**Form C-107A**  
**Application for Downhole Commingling**

Marbob Energy Corporation  
Red Ryder State Com No. 1 (Unit A/H, Sec. 25-T25S-R27E)

Marbob Energy proposes to downhole commingle the Bone Spring and Delaware in the captioned well.

No crossflow will occur because this well will be rod pumped in a pumped down condition. The proposed zonal allocation is described below. The best engineering estimate is that the Bone Spring decline behavior over time will approximate the Delaware decline behavior

Bone Spring: Best engineering estimate is that the Bone Spring will come in at 20 bopd/70 mcf. The best engineering estimate is that the oil will decline 50%/yr for 1 year, 25%/yr for 4 years, followed by 10%/yr thereafter. The best engineering estimate is that the gas will decline 50%/yr for 1 year, 25%/yr for 4 years, followed by 10%/yr thereafter.

Q<sub>oil</sub> = 20 bopd.  
Q<sub>1yr</sub> = 10 bopd  
Q<sub>5yr</sub> = 3 bopd  
Q<sub>el</sub> = 0.5 bopd

$$\begin{aligned}\text{EUR oil} &= \frac{-365 (20-10)}{\ln (1-.50)} + \frac{-365 (10-3)}{\ln (1-.25)} + \frac{-365 (3-0.5)}{\ln (1-.10)} \\ &= 5265 + 8881 + 8661 \text{ BO} \\ &= 22807 \text{ BO}\end{aligned}$$

Q<sub>gas</sub> = 70 mcf  
Q<sub>1yr</sub> = 35 mcf  
Q<sub>5yr</sub> = 11 mcf  
Q<sub>el</sub> = 5 mcf

$$\begin{aligned}\text{EUR gas} &= \frac{-365 (70-35)}{\ln (1-.50)} + \frac{-365 (35-11)}{\ln (1-.25)} + \frac{-365 (11-5)}{\ln (1-.10)} \\ &= 18430 + 30450 + 20786 \text{ MCF} \\ &= 69666 \text{ MCF}\end{aligned}$$

Delaware: Best engineering estimate is that the Delaware will start out at 40 bopd/140 mcf and will decline as described for the Bone Spring.

Q<sub>oil</sub> = 40 bopd  
Q<sub>1yr</sub> = 20 bopd  
Q<sub>5yr</sub> = 6.3 bopd  
Q<sub>el</sub> = 0.5 bopd

$$\begin{aligned}\text{EUR oil} &= \frac{-365 (40-20)}{\ln (1-.50)} + \frac{-365 (20-6.3)}{\ln (1-.25)} + \frac{-365 (6.3-0.5)}{\ln (1-.10)} \\ &= 10532 + 17382 + 20093 \text{ BO} \\ &= 48007 \text{ BO}\end{aligned}$$

Q<sub>i</sub> = 140 mcf  
Q<sub>1yr</sub> = 70 mcf  
Q<sub>5yr</sub> = 22 mcf  
Q<sub>el</sub> = 5 mcf

$$\begin{aligned}\text{EUR gas} &= \frac{-365 (140-70)}{\ln (1-.50)} + \frac{-365 (70-22)}{\ln (1-.25)} + \frac{-365 (22-5)}{\ln (1-.10)} \\ &= 36861 + 60901 + 58893 \text{ MCF} \\ &= 156,655 \text{ MCF}\end{aligned}$$

#### Zonal Allocation

$$\text{Bone Spring Oil} = \frac{22807 \text{ BO}}{22807 + 48007 \text{ BO}} = 32.21\% \text{ Say } 32\%$$

$$\text{Bone Spring Gas} = \frac{69666 \text{ MCF}}{69666 + 156,655 \text{ MCF}} = 30.78\% \text{ Say } 31\%$$

$$\text{Delaware Oil} = 100 - 32\% = 68\%$$

$$\text{Delaware Gas} = 100 - 31\% = 69\%$$

District I

1625 N French Dr., Hobbs, NM 88240

District II

1301 W Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S St Francis Dr., Santa Fe, NM 87505

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Fonn C-102  
 Permit 38339

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number 30-015-35150	2 Pool Code 78260	3 Pool Name HAY HOLLOW, MORROW (GAS)
4 Property Code 36027	5 Property Name RED RYDER STATE COM	6 Well No. 001
7 OGRID No 14049	8 Operator Name MARBOB ENERGY CORP	9 Elevation 3015

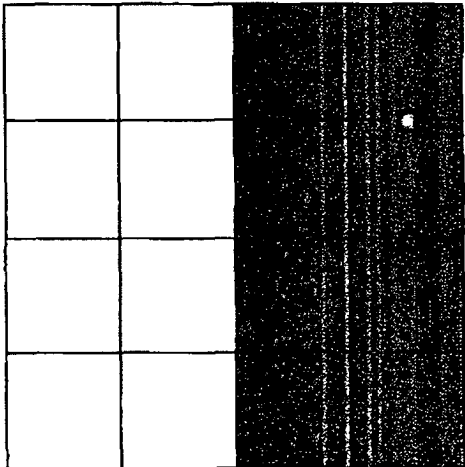
**10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	25	25S	27E	A	1320	N	660	E	EDDY

**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12 Dedicated Acres 320.00	13. Joint or Infill		14. Consolidation Code		15 Order No				

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

	<p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: Diana Briggs        Title: Production Analyst        Date: 9/20/2006</p> <hr/> <p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: Gary Eidson        Date of Survey: 8/25/2006        Certificate Number: 12641</p>
---	---